

WHAT IS CLAIMED IS:

1.           A lithographic projection apparatus, comprising:
  - a radiation system constructed to provide a beam of radiation;
  - a support structure to support a patterning device, said patterning device serving to pattern said beam of radiation according to a desired pattern and form a patterned beam;
  - a substrate table for supporting a substrate;
  - a projection system that projects said patterned beam onto a target portion of said substrate; and
  - at least one holding structure having at least one compliant member constructed to hold a pimple plate, said pimple plate constructed to hold one of said patterning device and said substrate.
2.           A lithographic projection apparatus according to claim 1, wherein said at least one compliant member includes a membrane.
3.           A lithographic projection apparatus according to claim 1, wherein said at least one compliant member includes a pair of parallel flaps.
4.           A lithographic projection apparatus according to claim 3, wherein each of said pair of parallel flaps is supported along the respective length of each of said pair of parallel flaps.
5.           A lithographic projection apparatus according to claim 1, wherein said pimple plate is substantially rigid in comparison with said at least one compliant member.
6.           A lithographic projection apparatus according to claim 1, further comprising:
  - a plurality of supports for supporting said at least one of said patterning device and said substrate and each of said plurality of supports extending substantially perpendicular to a plane of said at least one of said patterning device and said substrate.

7. A lithographic projection apparatus according to claim 6, wherein said plurality of supports are arranged to support said pimple plate at Bessel points.
8. A lithographic projection apparatus according to claim 7, wherein said plurality of supports is three fixed supports.
9. A lithographic projection apparatus according to claim 6, wherein at least one of said plurality of supports provides electrical contact with said pimple plate.
10. A lithographic projection apparatus according to claim 1, further comprising:
  - an electrostatic clamp constructed to clamp said pimple plate to at least one of said one of said patterning device and said substrate and said at least one compliant member.
11. A lithographic projection apparatus according to claim 1, wherein said beam of radiation comprises EUV radiation.
12. A lithographic projection apparatus according to claim 1, wherein said at least one of said support structure and said substrate table includes said at least one holding structure.
13. A method of manufacturing a device using a lithographic projection apparatus comprising:
  - providing a beam of radiation;
  - providing a support structure for supporting a patterning device;
  - using the patterning device to pattern the beam of radiation according to a desired pattern forming a patterned beam;
  - providing a substrate table for supporting a substrate;
  - holding one of the patterned beam and the substrate on a pimple plate during operation of the apparatus;

holding the pimple plate on at least one compliant member; and  
projecting the patterned beam onto a target portion of the substrate.

14. A lithographic projection apparatus, comprising:  
means for projecting said patterned beam of radiation onto a target portion of a substrate;  
holding means for holding at least one of a patterning device and said substrate; and  
means for resiliently supporting said holding means.
15. A lithographic projection apparatus, comprising:  
a radiation system constructed to provide a beam of radiation;  
a pimple plate having protrusions extending from a surface, said pimple plate constructed to hold a removable item on said protrusions;  
a holding structure having at least one compliant member constructed to resiliently hold said pimple plate.
16. A lithographic projection apparatus according to claim 15, wherein:  
said removable item is one of a patterning device serving to pattern said beam of radiation according to a desired pattern and form a patterned beam and a substrate.